



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/088,674	06/02/1998	DANIEL J. MORGAN	TI-25995	2025

23494 7590 11/28/2001

TEXAS INSTRUMENTS INCORPORATED
 P O BOX 655474, M/S 3999
 DALLAS, TX 75265

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
----------	--------------

2674

DATE MAILED: 11/28/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

66

Office Action Summary

Application No.

09/088,674

Applicant(s)

MORGAN ET AL.

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

The amendment filed on 9/10/2001 is entered. The rejections of claims 1-10 are maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fossum (US 5,995,163) in view of Dean (US 5,963,261).

4. As to claim 1, Fossum teaches, referring to Fig. 2, a method of digital data which includes a step of positive offsetting " $It+max/2n$ " at step 206 by a first predetermined amount ($+max/2n$) to form a first offset pixel value (output $b_{(n-1)2}=1$) and the method of negative offsetting " $It-max/2n$ " at step 210 by the opposite of the first predetermined

amount $(-\max/2n)$ to form a second offset pixel value (output $b_n = 0$), such that the average of (output $b_{(n-1)/2} = 1$) and (output $b_n = 0$) at step 200 by half scale $(\min + \max)/2$ or $(0 + 1)/2$ where 0 is the lowest (zero scale) value and \max is the full scale value (see col. 2, lines 30-32). Therefore, Fossum teaches all of the claimed limitations of claim 1, except for displaying the first offset pixel value during a first display frame, and displaying the second offset pixel value during a second display frame. However, Dean teaches a related method of displaying the offset pixel value during the display frame (a progressive scan image and interlaced scan image, see abstract). It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the method of displaying frame taught by Dean in the method of Fossum's offsetting pixel data because the usage of "mid range" technique (col. 2, lines 61-62 of Dean), any filter (col. 5, lines 53-55 of Dean), combining filter, these are well known techniques (col. 6, lines 1-2 of Dean) which are provided to perform the image quality, to minimize bandwidth, to minimize memory, to implement the "nearest neighbor" pixels (see col. 3, lines 1-16 of Dean).

As to claim 2, Fossum teaches the method of the value of a first predetermined amount $(+\max/2n)$ is selected as a function of a first offset pixel value (output $b_{(n-1)/2} = 1$).

As to claim 3, Fossum teaches the method of a first offset pixel value (output $b_{(n-1)/2} = 1$) is greater than or less than the positive offsetting " $+\max/2n$ ".

As to claim 4, Dean teaches the method of the pixel value is displayed using a plurality of weighted bit-planes (a progressive scan image at a resolution of 1280x720, an interlace scan image at a resolution of 1920x1080 or visa-versa, see abstract).

As to claim 5, Dean teaches the method of the progressive-to-interlace and interlace-to-progressive which are mutual.

As to claim 6, Dean teaches a system of displaying digital video data which includes the equivalent logic circuit offsetting pixel value such as mid range technique (col. 2, lines 61-62), any filter (col. 5, lines 53-55), the I-P technique of "nearest neighbor, according to which the closest pixel vertically from the input field is copied to the output frame (see col. 5, lines 53-61), combining filter according to well known technique (col. 6, lines 1-2). It would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that Dean discloses any filter application (see col. 5, lines 53-55), the well known technique (see col. 6, lines 1-2), to display the first offset pixel value during a first display frame and displaying the second offset pixel value during a second display frame as claimed.

As to claim 7, Fossum teaches a first predetermined amount ($+max/2n$) is selected by the equivalent logic circuit control (Fig. 4) as a function of a first offset pixel value (output $b_{(n-1)2} = 1$).

As to claim 8, Fossum teaches a first offset pixel value (output $b_{(n-1)2} = 1$) is greater than or less than the positive offsetting " $It+max/2n$ ".

As to claim 9, Dean teaches the pixel value is displayed using a plurality of weighted bit-planes (a progressive scan image at a resolution of 1280x720, an interlace scan image at a resolution of 1920x1080 or visa-versa, see abstract).

As to claim 10, Dean teaches the progressive-to-interlace and interlace-to-progressive which are mutual.

Response to Arguments

5. Applicant's arguments filed 9/10/2001 have been fully considered but they are not persuasive.

6. In response to applicant's argument that "differences between the prior art and the claims at issue are to be ascertained", the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the method of displaying frame taught by Dean in the method of Forsum's offsetting pixel data because the usage of "mid range" technique (col. 2, lines 61-62 of Dean)/ any filter (col. 5, lines 53-55 of Dean)/ combining filter (col. 6, lines 1-2 of Dean) the well known technique (see col. 6, lines 1-2 of Dean), which are provided to perform the

image quality, to minimize bandwidth, to minimize memory, to implement the "nearest neighbor" pixels (see col. 3, lines 1-16 of Dean).

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

For these reasons, the rejections based on Fossum and Dean have been maintained.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2674

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on M-F (9:00-5:00), with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Application/Control Number: 09/088,674
Art Unit: 2674

Page 8

Kevin M. Nguyen
Examiner
Art Unit 2674

KN
November 7, 2001

A handwritten signature in black ink, appearing to read 'R. Hjerpe', is positioned above the printed name.

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600